

Preface

The International Conference on Manufacturing Science and Engineering is the premier forum for the presentation of new advances and research results in the fields of Manufacturing Science and Engineering. The conference brings together leading researchers, engineers and scientists in the domain of interest from around the world. The 1st ICMSE was held in Zhuhai, 2009, the 2nd in Guilin, 2011, the 3rd in Xiamen, 2012, and the 4th in Dalian, 2013. Following the style of the previous four successful congresses, the 5th International Conference on Manufacturing Science and Engineering was held in Shanghai, China, 19-20 April 2014. The program was designed to advance manufacturing technologies to the next generation through discussion of the most recent advances and future perspectives, and to engage the worldwide community in a collective effort to solve problems in manufacturing. Delegates from more than 30 countries or districts attended those conferences.

The present volumes provide up-to-date, comprehensive and worldwide state-of-the-art knowledge of the manufacturing science and engineering, including: Alloys and Non-Ferrous Materials, Iron and Steel, Composites, Micro/Nano Materials and Technologies, Ceramics, Optical/Electronic/Magnetic Materials and Technologies, Building and Construction Research, Environment-Friendly Materials, Biomaterials and Bioresearch, Polymer Materials, Film Materials, Textile Materials and Technologies, Corrosion and Surface Treatment Technology, Materials Mechanical Behavior and Fracture, Surface Engineering / Coatings Technology, Forming Technologies, Material Machining, Welding and Joining, Micro-fabrication Techniques, Laser Processing Technology, Machining Tools, Testing Technologies and Error Measurement, Modeling, Analysis and Simulation of Processes, Thermal Engineering Theory and Applications, Mineral and Soil Mining and Processing, etc. All papers included in those volumes have already passed the strict peer-reviewing by 2-5 expert referees and been accepted for publication. We hope that those volumes will not only provide the readers a broad overview of the latest advances but also provide the researchers a valuable summary and reference in this field.

The organization of ICMSE2014 and the publication of those volumes were made possible thanks to the tireless dedication of many people. We would like to express our sincere thanks to the session organizers, session chairs, reviewers, presenters, exhibitors and congress attendees for their efforts and enthusiastic participation in this congress.

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